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Application Serial No. 09/721,141

REMARKS

The Applicant and the undersigned thank Examiner Irshadullah for the careful review of this application. Consideration of the present application is respectfully requested in light of the above amendments to the application and in view of the following remarks. Claims 26-35 have been rejected. And Claims 26-35 have been cancelled. Upon entry of this amendment, Claims 40-49 remain pending in this application. Newly submitted independent Claims 40, 43 and 44 correspond with previously pending independent Claims 26, 29, and 30.

The Applicant appreciates the Examiner's insight and comments during the phone conversation with Applicant's representative on December 20, 2001. The Examiner had pointed out that the words, "Once Amended," for Claim 29 were inaccurate since the Claim 29 had been changed by a preliminary amendment mailed on November 22, 2000. Further to the Examiner's comments, the Applicant respectfully submits that the amendment to Claim 29 and Claim 26 for September 19, 2001 had additional flaws.

Specifically, the Amendment to Claim 29 of the response for September 19, 2001 did not reflect that the phrase, "comprising the steps of..." had been changed to --said program performing the steps comprising...-- by the preliminary amendment mailed on November 22, 2000. The replacement claims presented above now reflects these changes that were made by the preliminary amendment filed on November 22, 2000.

Also, Claim 26 as presented in the amendment of September 19, 2001 had the following phrase: "said program performing the steps comprising." Meanwhile, claim 26 should have recited --comprising the steps of--.

The Examiner pointed out in the Advisory Office Action of April 15, 2002, that the Applicants did not submit the requisite mark-up copy of the amended claims as required by 37 C.F.R. 1.121(c) in the Applicant's response of March 28, 2002. However, the Applicants were trying to correct changes that were previously made and it was explained to the Examiner in the response of March 28, 2002 why a mark-up copy was not being submitted.

In order to resolve this mark-up copy issue for the claims, the Applicant has cancelled Claims 26-35 and replaced them with the new claim set of Claims 40-49.

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Objection to the Specification

The Examiner objected to several informalities in the present application. The Applicant has amended the specification in accordance with the Examiner's helpful comments. Reconsideration and withdrawal of the Examiner's objection are respectfully requested.

Claim Rejections under 35 U.S.C. § 112, first paragraph and second paragraph

The Examiner rejected claims 26-35 under 35 U.S.C. § 112, first paragraph as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the art that the inventor, at the time the application was filed, had possession of the claimed invention. The Examiner also rejected claims 26-35 under 35 U.S.C. § 112, second paragraph. These rejections are respectfully traversed.

In order to overcome this rejection, the Applicant has amended the claims in accordance with the Examiner's helpful comments that were discussed during the Telephonic interviews with the Examiner on December 20, 2001 and on April 8, 2001. Specifically, the Applicant has changed all recitations of "animate" to --human-- and "inanimate" in the independent claims to --non-human-- as suggested by the Examiner.

Accordingly, reconsideration and withdrawal of these rejections are respectfully requested.

Claim Rejections under 35 U.S.C. § 102(b) and § 103(a)

The Examiner rejected claims 26, 29, and 30-34 under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 5,893,074 to Hughes et al. The Examiner also rejected claims 27, 28, and 35 under 35 U.S.C. § 103(a) as being unpatentable over Hughes et al. in view of U.S. Patent No. 5,406,476 to Deziel, Jr. et al. The Applicant respectfully offer remarks to traverse these pending rejections.

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Independent Claims 26, 29, and 30

The rejections of Claims 26, 29, and 30 are respectfully traversed. It is respectfully submitted that the Hughes et al. and Deziel, Jr. et al. references fail to describe, teach, or suggest the recitations enumerated in amended independent Claims 36, 39, and 40. Newly submitted independent Claims 40, 43, and 44 correspond with previously pending independent Claims 26, 29, and 30.

These references fail to describe, teach, or suggest (1) a task comprising an amount of work, (2) each assignment comprising a portion of the work that corresponds with an individual resource; (3) associating each of the N assignments with one of said N resources, (4) each resource comprising one of a non-human and human object capable of performing an assignment; and (5) for each assignment, identifying the task, corresponding individual resource, and one of the portion of work corresponding to a respective resource and a duration of the assignment. Further, these references do not provide any teaching of (6) generating a list comprising the N assignments.

While the Hughes et al. reference describes a schedule-control method that tracks tasks, these tasks comprise contracts between a supplier and a receiver. The contract results in the production of a "Product." Specifically, the Hughes et al. reference defines the contracts and products as follows:

"Each of these components work together to process input data in a special format that is defined herein as a "receivable/deliverable" (or "rec/del") format. Using the rec/del format, the method breaks down the project into a series of smaller components, referred to herein as "tasks". Each task involves a "contract" between a supplier and a receiver. The contract results in the production of a "product". Users can enter and access up-to-the-minute input data concerning a particular product or task from the rec/del system." [Emphasis Supplied.] See Hughes et al., column 2, lines 7-16.

"The schedule-control method includes several steps for receiving, processing, analyzing, computing and sending information for monitoring the status of the project. In a first step, suppliers or receivers enter the first set of input data to the method to identify the input and output products of their particular task. The first set of input data processed by the computer upon receipt are "bids". Bids are sent by suppliers and receivers over an electronic user interface and stored in the relational database of a computer." [Emphasis Supplied.] See Hughes et al., column 2, lines 17-25.

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"The input data within a bid identify a particular product by: 1) naming the product; 2) associating a receiver's identification number (i.e., an account identification code) with the product; 3) associating a supplier's identification number with the product; 4) associating the receiver's required delivery date with the product; and, 5) associating the supplier's available delivery date with the product. These input data are provided for each product in the project. A contract is formed when both the supplier and receiver agree to the criteria used to define the product." [Emphasis Supplied.] See Hughes et al., column 2, lines 36-45.

"The input data within the bid are then analyzed by the computational component to determine the "state" of each product in the project. For example, the states of a product include "reconciled", "date not agreed", "product not agreed", or "no impact". If one party changes one of the criteria during the course of the project, the product's state is no longer in agreement. This change must be reviewed and accepted by the other party to complete a new contract." [Emphasis Supplied.] See Hughes et al., column 2, lines 46-53.

"The project 10 is broken down into a series of large-scale tasks 14a-14d. Each large-scale task is broken down into smaller tasks 15a-15d. Each task 14a-14d, 15a-15d results in a product. Products are designs, mechanical or electrical parts, tests, or reports. Each task is defined by a contract between at least two responsible parties, i.e., a receiver and supplier of the product." [Emphasis Supplied.] See Hughes et al., column 5, lines 9-15.

In light of the above recitations, one of ordinary skill in art recognizes that the schedule-control system 22 of the Hughes et al. reference does not describe tasks, assignments, or resources corresponding to assignments.

While the Hughes et al. reference may provide a teaching of a planning system 24 that may relate to tasks comprising work, the Hughes et al. reference does not provide any teaching of dividing tasks into assignments. The focus of the Hughes et al. patent is the schedule control method 22 that is separate and distinct from the planning system 24. Specifically, the Hughes et al. reference discusses the relationship between the schedule-control system 22 (that involves products/contracts and not work) and the planning system 24 as follows:

"The planning system 24 is used in combination with the schedule-control method 22 to coordinate working agreements between suppliers and receivers. The planning system 24 additionally includes applications for

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work package agreements 70 (WPAs), an example of which is shown in FIG. 6. This form is completed by all Technical Managers before working on a task. Empowered users create, view, edit, and print WPAs 70 using the WPAs 30 system. Each WPA 70 documents the task by including its title 72, date 74, users who perform the work 76, the objectives of the task 78, and a description of the approach used to work on the task 80. WPAs can also include the task's duration, financial data, items that must be delivered for the work package to proceed, and start and projected completion dates for the activities described in the work package." See Hughes et al, column 11, lines 33-47.

The aforementioned excerpt is the only explanation for the planning system 24 which is separate from the schedule-control method 22. The planning system 24 does not show (1) a task comprising an amount of work, (2) each assignment comprising a portion of the work that corresponds with an individual resource; (3) associating each of the N assignments with one of said N resources, (4) each resource comprising one of a non-human and human object capable of performing an assignment; and (5) for each assignment, identifying the task, corresponding individual resource, one of the portion of work corresponding to a respective resource and a duration of the assignment; and (6) generating a list comprising the N assignments.

Opposite to and separate from the planning system 24, the schedule control method 22 does not relate to assignments or work. The flowchart in Figure 3 of Hughes et al. describes how each task or contract of the schedule control method 22 is tracked. See Hughes et al., column 6, lines 12-33 which state:

"FIG. 3 shows a flowchart illustrating steps used in the schedule-control method 22. Each of the steps shown in the figure are carried out using the computational component. Input data in any appropriate rec/del format are supplied in bids by either the supplier or receiver. Data are supplied to the relational database of the system for analysis at step 49. The first set of input data identifies and defines the product. The definition of a product includes: 1) naming the product; 2) associating a receiver's identification number with the product; 3) associating a supplier's identification number with the product; 4) associating the receiver's required delivery date with the product; and, 5) associating the supplier's available delivery date with the product." [Emphasis Supplied.]

"The first bid of input data is analyzed at step 50 by the computational component 20. A contract for the product is established at step 51

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between the supplier and receiver only once criteria 1)-5), above, are agreed to by the supplier and receiver. The computer stores the bids of all receivers and suppliers, sorted by name. When another bid comes in, it is analyzed against the previously stored bid with that same name. Agreement of all terms yields a contract, and also establishes an initial state for the product at step 52. The initial state plus each iteration is sent by e-mail as a first set of output data to the appropriate suppliers and receivers at step 53." [Emphasis supplied.]

Therefore, it is not seen how a reference describing tasks that comprise contracts and products could anticipate or render obvious claim recitations drawn to tasks comprising work, assignments comprising portions of the work, and resources associated with the assignments as recited in independent Claims 40, 43, and 44. One of ordinary skill in the art recognizes that Hughes et al. does not provide any teaching of dividing a task into assignments in order to efficiently manage a task.

The Applicant respectfully submits that for a proper rejection based upon 35 U.S.C. § 102, the Examiner must comply with MPEP § 2131, first paragraph (8th Ed., August 2001) states the following:

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"The identical invention must be shown in as complete detail as is contained in the... claim. Richardson v. Suzuki Motor Company, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989)."

Because the Hughes et al. reference is neither designed for tracking a task comprising work and assignments as they relate to resources, the Hughes et al. reference simply fails to show the identical invention as defined in independent Claims 40, 43, and 44. In light of these deficiencies, the Applicant respectfully submits that this reference fails to address all of the recitations of independent Claims 40, 43, and 44.

In addition to the Hughes et al. reference failing to track tasks, the Examiner admits that the Hughes et al. reference fails to teach task constraints or scheduling constraints. To make up for these several deficiencies, the Examiner relies upon the Deziel, Jr. et al. reference.

The Deziel, Jr. et al. reference describes a system and method for scheduling activities that is focused on slack time, an amount of time an activity can be delayed without impacting a project's finish date. Specifically, the Deziel, Jr. et al. reference teaches the following about scheduling activities:

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"The present invention is a method for quickly scheduling activities while preserving the probabilistic information about activity scheduling and taking resource constraints into consideration. An initial, deterministic, unconstrained schedule is first computed to allow an approximation to be made of each activity's slack time. (Slack time is the amount of time an activity can be delayed without impacting the project's finish date.) The rule for establishing the order in which activities are scheduled is made such that the activity with least available slack time should be scheduled before those with greater slack time." See Deziel, Jr. et al., column 2, lines 45-54.

While the Deziel, Jr. et al. reference may evaluate resources of an activity, the Deziel, Jr. et al. reference is not concerned with dividing a task or activity into assignments based upon the resources assigned to a task. Instead, the Deziel, Jr. et al. reference is concerned with the scheduling of a single activity that may be part of a group of activities:

"The resource constrained scheduling procedure of the present invention utilizes an iterative list processing approach to schedule the activities of the project. Activities are selected and scheduled one at a time from a list of schedulable activities. Exactly one activity is scheduled at each step. The priority rule for scheduling an activity is to select from the currently schedulable activities, the one which has the least total slack time from the deterministic schedule as defined above. However, it will be obvious to one skilled in the art that other priority scheduling rules may also be utilized." [Emphasis supplied.] See Deziel, Jr. et al., column 8, lines 34-44.

While the Deziel, Jr. et al. reference may be concerned with constraints on resources, its focus is activity-centered with an emphasis on the order of activities.

Conversely, the present invention is focused on individual assignments associated with resources that may make up a task so that a list of assignments can be generated for later processing as recited in amended independent Claims 40, 43, and 44. See page 20, lines 10-32 of the present application. Therefore, the Deziel, Jr. et al. reference alone or in combination with the Hughes et al. reference cannot anticipate nor render obvious the recitations as set forth in amended independent Claims 40, 43, and 44.

The Applicant further submits that the Examiner must evaluate the claim combination as a whole as opposed to defining specific isolated elements of the prior art which do not contemplate the design the Applicant's claimed invention. The Applicant

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respectfully submits that MPEP § 2141.02, 2nd paragraph (8th Ed., August 2001), states the following:

“In determining the differences between the prior art and the claims, the questions under 35 U.S.C. § 103 is not whether the differences themselves would have been obvious, but whether the claimed invention as a whole would have been obvious. Stratoflex, Inc. v. Aeroquip Corp., 713 F.2d 1530, 218 USPQ 871 (5th Circuit 1993).”

The Applicant respectfully submits that the Examiner is overlooking the specific design of the invention defined by amended Claims 44, 43, and 44 and the design presented by the prior art references. Specifically, the Examiner is not considering that a task comprising work of the present invention is divided into resource-oriented assignments and where a list is generated that comprises these assignments. The design presented by the Hughes et al. reference is concerned with tasks that comprise products and contracts. Meanwhile, the design of the Deziel, Jr. et al. reference is concerned with scheduling activities according to a calculated slack time. Accordingly, reconsideration and withdrawal of the rejection of the claims are respectfully requested.

Dependent Claims 41-42, and 45-49

The Applicant respectfully submits that the above-identified dependent claims are allowable because the independent claims from which they depend are patentable over the cited references. The Applicant also respectfully submits that the recitations of these dependent claims are of patentable significance.

CONCLUSION

The foregoing is submitted as a full and complete response to the Office Action mailed on December 28, 2001. The Applicant and the undersigned thank Examiner Irshadullah for the consideration of these remarks. The Applicant has submitted new Claims 40-49, cancelled a corresponding number of other pending claims, and has submitted remarks to traverse the rejections of Claims 26-35. The Applicant respectfully submits that the present application is in condition for allowance. Such Action is hereby courteously solicited.

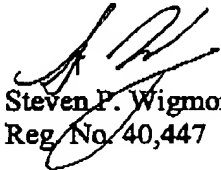
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In the event the Examiner does not consider this application to be in condition for allowance, it is respectfully requested that the instant amendment be entered for purposes of Appeal. This amendment should overcome the 35 U.S.C. section 112, first paragraph and second paragraph rejections and therefore simplify the issues for Appeal. Nonetheless, it should be unnecessary to proceed to Appeal because the instant application should now be in condition for allowance.

If the Examiner believes that there are any issues that can be resolved by telephone conference, or that there are any formalities that can be corrected by an Examiner's Amendment, please contact the undersigned in the Atlanta Metropolitan Area at (404) 572-2884.

Respectfully submitted,

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Version with markings to show changes made

The paragraph on page 27, lines 19-37 through page 28, lines 1-5, has been changed as follows:

Figs. 7a-e are diagrams illustrating an example of the process performed in Steps 256-257. Fig. 7a, is a dependency tree diagram for four tasks (Task 1 - Task 4). In this example, Task 2 is dependent upon Task 1, and Tasks 3 and 4 are dependent upon Task 2. Fig. 7b is a table providing pertinent information concerning the Group [4]₃ assignments. Fig. 7c is a table providing pertinent information concerning the Group [3]₄ assignments. In Fig. 7c, each of the assignments associated with Task 1 have been scheduled with the exception of Assignment 2. If Assignment 2 is the Current Assignment, upon scheduling Assignment 2, all of the assignments for Task 1 will be scheduled. At this point, the Group 4 assignments are examined to determine which assignments were dependent upon Task 1. Because Task 2 is directly dependent upon Task 1, each of the predecessor counts for the Task 2 assignments (Assignments 4-7) are decremented by one. Furthermore, because Task 3 and Task 4 are indirectly dependent upon Task 1 (i.e. they are dependent on Task 2 which is dependent on Task 1) then each of the predecessor counts for Task 3 and Task 4 assignments are decremented by 1. Finally, if the predecessor counts of any Group 4 assignments have been decremented to zero, then they are moved into Group 3. In this example, the Task 2 assignments (Assignments 4-7) will be moved into Group 3. Figs. 7d-e illustrate the results after Assignment 2 has been scheduled. Fig 7d illustrates that Assignments 4-7 have been moved into Group 3. Fig 7e illustrates that the predecessor counts for Assignments 8-10 have been decremented by 1 but they remain in Group 4.